

Optimization of Steam Field Management at the Aidlin Geothermal Project, Sonoma County, California

GOALS

- To test methods and models to increase steam production at areas in The Geysers where steam is gassy or superheated.
- To investigate the efficacy of two types of water injection schemes.



PROJECT DESCRIPTION

The project is investigating field methods and feasibility models for an innovative approach to improving steam management at the Aidlin field and other areas.. The objectives are: to forecast, using computer models, the feasibility of downhole injection at low rates (trickle injection) into a production well to improve productivity; to demonstrate, by field testing, the effectiveness and finetune the methodology of downhole injection, and to develop a numerical

model of the steam reservoir beneath the Aidlin area.; and finally, to evaluate and prioritize the available field management optimization techniques by costs and benefits.

The modeling tasks are complete and successful, and show that the idea of slow, controlled injection in selected areas (based on the steamfield model) can improve steam production. The long term field testing methodology is being redesigned after injection tubing showed persistent problems with clogging. The short term field testing was successful and supports the models.



BENEFITS TO CALIFORNIA

The Geysers is the world's largest producing geothermal field. But recently it has been experiencing declining output in response to reservoir pressure decreases, caused by overproduction. The injection technique and the models from this project are expected to provide significant increases in sustained steam rates, to prolong the life of the resource, increase power production, and reduce field management costs.

FUNDING AMOUNT

Commission \$238,928
Match \$239,255

PROJECT STATUS

Ongoing.

FOR MORE INFORMATION

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